

TABLE II-continued

APPENDIX			
I/O TOKEN	VALUE DESCRIPTION	TYPE DESCRIPTION	MAXIMUM LENGTH
UNLOCK			
SHIPPER	ID		
REFRESH			
SHIPPER			
LOAD			
ZONE	/*URSA routing file - - unZIPs!*/		
SHIPPER	ID		
FILENAME	drive (A,B, etc.)		
LOAD			
RATE	/* electronic rate file */		
SHIPPER	ID		
FILENAME	drivepath and filename		
LOAD			
REGION	/* region file, if Express saver */		
SHIPPER	ID		
FILENAME	drivepath and filename		
TRANSMIT			
SHIPPER	ID		
[			
ID	filename		
...]			
CANCEL			

What is claimed is:

1. A logistics management tool to facilitate the process of shipping goods by a shipper via a selected one of a plurality of carriers, comprising:

a plurality of rate servers comprising computer-implemented rate storage and calculating means, at least one rate server for each of said plurality of carriers, at least one of said rate servers having message processing means for sending, receiving and handling messages;

at least one of said rate servers having database means for maintaining a record of the rates applicable to a given one of said carriers and further having an embedded set of predefined methods representing the rate computation rules of said given one of said carriers;

at least one client application comprising computer-implemented input and output means separate from said rate servers and having user interface to permit the shipper to interact with said logistics management tool in order to process the shipment of goods;

at least one of said rate servers having a shipper interface means for defining a set of operations accessible to said client application; the set of operations representing the procedure by which the shipper ships goods to thereby isolate the set of operations by which a shipper ships from the rules by which a carrier transports;

at least one supervisory server for integrating operations of said rate server, and for making said operations accessible to said client application, said supervisory server having message processing means for sending messages to and receiving messages from said rate server and said client application and for handling messages sent and received based upon a predefined set of rules.

2. The tool of claim 1 further comprising scripting system communicating with said client application for modifying at least one of said set of operations representing the procedure by which the shipper ships goods.

3. The tool of claim 1 wherein said client application comprises a shipments client for rating and documenting a

group of packages comprising a shipment being processed  
30 by the shipper.

4. The tool of claim 1 wherein said client application  
comprises a packages client for rating and documenting a  
single piece of shipment being processed by the shipper.

5. The tool of claim 2 wherein said scripting system is a  
35 script administration client comprising one of said client  
applications.

6. The tool of claim 1 wherein said client application  
comprises a carrier rate adjustments client having a user  
interface operable to allow the user to alter the predefined  
40 methods representing the rate computation rules.

7. The tool of claim 1 further comprising document server  
for providing printing services to said client application.

8. The tool of claim 7 wherein said printing services  
include printing documents generated to effect shipment.

9. The tool of claim 1 wherein said rate server is installed  
45 on a first computer system and wherein said client applica-  
tion is installed on a second computer system, the first and  
second computer systems being coupled together over a  
network.

10. The tool of claim 1 further comprising external  
50 processing manager for providing communications services  
to permit said client application to request and receive data  
from an external database not supervised by said supervisory  
server.

11. The tool of claim 10 wherein said logistics manage-  
55 ment tool is installed under an operating system which  
provides command interpreter facility and wherein said  
external processing manager interfaces with said operating  
system to use said command interpreter facility to provide  
60 said communications services.

12. The tool of claim 11 wherein said command inter-  
preter facility is responsive to a predefined command set and  
wherein said external processing manager includes means  
integrated with said command interpreter facility for supple-  
65 menting said predefined command set.

13. A logistics management tool to facilitate the process of shipping goods by a shipper via a carrier, comprising:

a rate server comprising computer-implemented rate storage and calculating means, said rate server having message processing means for sending, receiving and handling messages;

said rate server having database means for maintaining a record of the rates applicable to said carrier and further having an embedded set of predefined methods representing the rate computation rules of said carrier;

at least one client application comprising computer-implemented input and output means separate from said rate server and having user interface to permit the shipper to interact with said logistics management tool in order to process the shipment of goods;

said rate server having a shipper interface means for defining a set of operations accessible to said client application; the set of operations representing the procedure by which the shipper ships goods to thereby isolate the set of operations by which a shipper ships from the rules by which said carrier transports;

at least one supervisory server for integrating operations of said rate server, and for making said operations accessible to said client application, said supervisory server having message processing means for sending messages to and receiving messages from said rate server and said client application and for handling messages sent and received based upon a predefined set of rules.

14. The tool of claim 13 further comprising scripting system communicating with said client application for modifying at least one of said set of operations representing the procedure by which the shipper ships goods.

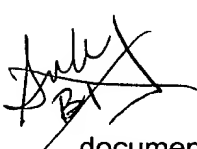
15. The tool of claim 13 wherein said client application comprises a shipments client for rating and documenting a group of packages comprising a shipment being processed by the shipper.

16. The tool of claim 13 wherein said client application comprises a packages client for rating and documenting a single piece of shipment being processed by the shipper.

17. The tool of claim 14 wherein said scripting system is a script administration client comprising one of said client applications.

18. The tool of claim 13 wherein said client application comprises a carrier rate adjustments client having a user interface operable to allow the user to alter the predefined methods representing the rate computation rules.

19. The tool of claim 13 further comprising document server for providing printing services to said client application.

 20. The tool of claim 19 wherein said printing services include printing documents generated to effect shipment.

21. The tool of claim 13 wherein said rate server is installed on a first computer system and wherein said client application is installed on a second computer system, the first and second computer systems being coupled together over a network.

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22. The tool of claim 12 further comprising external processing manager for providing communications services to permit said client application to request and receive data from an external database not supervised by said supervisory server.

23. The tool of claim 22 wherein said logistics management tool is installed under an operating system which provides command interpreter facility and wherein said external processing manager interfaces with said operating system to use said command interpreter facility to provide said communications services.

24. The tool of claim 23 wherein said command interpreter facility is responsive to a predefined command set and wherein said external processing manager includes means integrated with said command interpreter facility for supplementing said predefined command set.

25. The tool of claim 13 wherein said rate server is installed on a first computer system and wherein said client application is installed on a second computer system, the first and second computer systems communicating over a global-wide area network.

26. The tool of claim 13, wherein the supervisory server comprises an interprocess communication mechanism for passing messages between the rate server and the client application.

*Sub B3*

27. A logistics management tool to facilitate the process of shipping goods by a shipper via a carrier, comprising:

a rate server, connected to a network, having a set of rules by which the carrier transports, and having an accessible server interface defining a message handling system for communicating with the rate server;

a client application, connected to the network, having a set of rules by which a shipper ships, and configured to communicate with the rate server via the server interface;

and

a supervisory server, connected to the network, for communicating messages between the rate server and the client application and thereby isolating the set of rules by which a shipper ships from the rules by which the carrier transports.

28. The tool of claim 27, wherein:

the client application includes an accessible client interface for communicating with the client application; and

the rate server is configured to communicate with the client application via the client interface.

29. The tool of claim 28, wherein the message handling system comprises:

at least one predefined request message issued by client application to the rate server; and

at least one predefined response message issued by the rate server to the client application.

30. The tool of claim 28, wherein:

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the predefined request message includes a weight and delivery date for a package to be shipped; and

the predefined response message includes a cost for shipping the package.

31. The tool of claim 27, wherein set of rules by which the carrier transports comprises a knowledge base of rate structures and shipping rules and regulations pertaining to the carrier.

32. The tool of claim 27, wherein set of rules by which the shipper ships comprises a knowledge base of the shipper's rules, regulations, and practices.

33. The tool of claim 32, wherein the knowledge base of the shipper's rules, regulations, and practices comprises rules for taking orders for goods from customers, packaging the goods, and shipping the goods to customers.

34. The tool of claim 27, wherein the client application further comprises a user interface for collecting input information from a user about a desired shipping operation and for providing output information.

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35. The tool of claim 27, wherein the supervisory server comprises an interprocess communication mechanism for passing messages between the rate server and the client application.

36. The tool of claim 35, wherein the interprocess communication mechanism is selected from the group comprising shared memory, semaphores, named pipes, queues, signals, netbios, sockets, and mail slots.

37. The tool of claim 35, further comprising an external processing manager for interfacing the logistics management tool with external data bases or other application programs.

38. The tool of claim 35, further comprising a device manager for interfacing the logistics management tool with external peripheral devices.

*Sub B4*  
39. The tool of claim 35, wherein the client application further comprises a document server for printing waybills, shipping labels, shipping manifests.

40. The tool of claim 35, further comprising a document administration object for altering communication standards for the message handling system.

41. The tool of claim 27 wherein the rate server is installed on a first computer system and wherein the client application is installed on a second computer system, the first and second computer systems communicating over a global-wide area network.




42. A logistics management tool to facilitate the process of shipping goods by a shipper via a carrier, comprising:

a rate server having a record of the rates applicable to said carrier and further having an embedded set of predefined methods representing the rate computation rules of said carrier, said rate server being connected to a network for sending, receiving and handling messages;

at least one client application connected to said network and is separately located from said rate server on said network, said client application having a user interface to permit the shipper to interact with said logistics management tool in order to process the shipment of goods;

said rate server having a shipper interface for defining a set of operations accessible to said client application, the set of operations representing the procedure by which the shipper ships goods to thereby isolate the set of operations by which a shipper ships from the rules by which said carrier transports; and

at least one supervisory server for making said operations of said rate server accessible to said client application, said supervisory server being connected to said network for sending messages to and receiving messages from said rate server and said client application and for handling messages sent and received based upon a predefined set of rules.

 43. The tool of claim 42, wherein:

the client application includes an accessible client interface for communicating with the client application; and

the rate server is configured to communicate with the client application via the client interface.

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44. The tool of claim 42, wherein at least one predefined request message is issued by client application to the rate server; and  
at least one predefined response message issued by the rate server to the client application, the predefined request message includes a weight and delivery date for a package to be shipped; and the predefined response message includes a cost for shipping the package.

45. The tool of claim 42, wherein the rate server includes a knowledge base of rate structures and shipping rules and regulations pertaining to the carrier.

46. The tool of claim 42, wherein the client application includes a knowledge base of the shipper's rules, regulations, and practices.

47. The tool of claim 46, wherein the knowledge base of the shipper's rules, regulations, and practices includes rules for taking orders for goods from customers, packaging the goods, and shipping the goods to customers.

48. The tool of claim 42, wherein the user interface collects input information from a user about a desired shipping operation and provides output information.

49. The tool of claim 42, wherein the supervisory server includes an interprocess communication mechanism for passing messages between the rate server and the client application.

*Amk B6*

50. The tool of claim 49, wherein the interprocess communication mechanism is selected from the group comprising shared memory, semaphores, named pipes, queues, signals, netbios, sockets, and mail slots.

51. The tool of claim 49 further comprising an external processing manager for interfacing the logistics management tool with external data bases or other application programs.

52. The tool of claim 49 further comprising a device manager for interfacing the logistics management tool with external peripheral devices.

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~~53. The tool of claim 49, wherein the client application further includes a document server for printing waybills, shipping labels, shipping manifests.~~

54. The tool of claim 42 wherein said rate server is installed on a first computer system and wherein said client application is installed on a second computer system, the first and second computer systems communicating over a global-wide area network.

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55. A logistics management method for facilitating the process of shipping goods by a shipper via a carrier, said shipper having a computer-implemented client application that has access to a network and which is related to shipping said goods, said client application having a set of rules by which the shipper ships, said method comprising the steps of:

providing a rate server having a set of rules by which the carrier transports in order to determine data related to shipping the goods;

providing access to said rate server to data on said network from the client application such that said rate server is separately located from said client application on said network; and

communicating the determined data from said rate server to said client application through a supervisory server connected to said network and thereby isolating the set of rules by which the shipper ships from the rules by which the carrier transports.

56. The method of claim 55 further comprising the step of:

communicating the determined data to the client application through an accessible client interface.

57. The method of claim 55 further comprising the steps of:

issuing a request message by the client application to the rate server; and

issuing a response message by the rate server to the client application.

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58. The method of claim 57, wherein:

the predefined request message includes a weight and delivery date for a package to be shipped; and

the predefined response message includes a cost for shipping the package.

*Sub 58*  
59. The method of claim 55 further comprising the step of:

providing the rate server with a knowledge base of rate structures and shipping rules and regulations pertaining to the carrier.

60. The method of claim 55 further comprising the step of:

providing the client application with a knowledge base of the shipper's rules, regulations, and practices.

61. The method of claim 60, wherein the knowledge base of the shipper's

rules, regulations, and practices includes rules for taking orders for goods from customers, packaging the goods, and shipping the goods to customers.

62. The method of claim 55 further comprising the step of:

collecting via a user interface input information from a user about a desired shipping operation.

63. The method of claim 55 further comprising the step of:

providing an interprocess communication mechanism for passing messages between the rate server and the client application.

*Add B9* 64. The method of claim 63, wherein the interprocess communication mechanism is selected from the group comprising shared memory, semaphores, named pipes, queues, signals, netbios, sockets, and mail slots.

65. The method of claim 63 further comprising the step of:  
providing an external processing manager for interfacing the logistics management tool with external data bases or other application programs.

66. The method of claim 63 further comprising the step of:  
providing a device manager for interfacing the logistics management tool with external peripheral devices.

*Add B10* 67. The method of claim 63 further comprising the step of:  
providing the client application with a document server for printing waybills, shipping labels, shipping manifests.

68. The method of claim 55 further comprising the steps of:  
installing the rate server on a first computer system, with the client application being on a second computer system; and  
providing the determined data of the rate server to the client application over a global-wide area network.

69. A computer storage medium storing computer-executable instructions for performing the method of Claim 55.

70. A computer-controlled apparatus configured to perform the method of Claim 55.

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